UNITED STATES PATENT AND TRADEMARK OFFICE

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10/768,509	01/30/2004	Mihal Lazaridis	555255012690	6885

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/768,509	LAZARIDIS ET AL.
	Examiner	Art Unit	
	James S. Wozniak	2626	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03 May 2007</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>2-13,37-45 and 48-50</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>2-13,37-45 and 48-50</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>30 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   In response to the office action from 3/6/2007, the applicant has submitted a request for

continued examination, filed 5/3/2007, amending claims 2 and 37, while adding new claims 48-

50 and arguing to traverse the art rejection based on the added limitation regarding searching,

analyzing, and displaying being performed without the using having entered a delimiter

(Amendment, Page 7). The applicant's arguments have been fully considered but are moot with

respect to the new grounds of rejection in further view of Snapper et al *(U.S. Patent: 7,216,292)*.

Also, amended claims 2 and 37 and new claim 48 are subject to a new matter rejection under 35

U.S.C. 112, first paragraph.

Double Patenting

2.   The nonstatutory double patenting rejection is based on a judicially created doctrine

grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection

is appropriate where the conflicting claims are not identical, but at least one examined

application claim is not patentably distinct from the reference claim(s) because the examined

application claim is either anticipated by, or would have been obvious over, the reference

claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re*

Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225

USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163

USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may

be used to overcome an actual or provisional rejection based on a nonstatutory double patenting

ground provided the conflicting application or patent either is shown to be commonly owned

with this application, or claims an invention made as a result of activities undertaken within the

scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal

disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR

3.73(b).

3.   Claims 2-13, 37-45, and 48-50 are rejected on the ground of nonstatutory obviousness-

type double patenting as being unpatentable over claims 3-5 and 8-9 of U.S. Patent No.

6,691,111. Although the conflicting claims are not identical, they are not patentably distinct

from each other because both claimed inventions describe essentially the same process/system

for receiving an abbreviated textual command, searching a natural language database for the

command, analyzing historical data to identify possible command matches, and displaying a list

of the possible command matches.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

5.   **Claims 2-13, 37-45, and 48-50** are rejected under 35 U.S.C. 112, first paragraph, as

failing to comply with the written description requirement. The claim(s) contains subject matter

that was not described in the specification in such a way as to reasonably convey to one skilled in

the relevant art that the inventor(s), at the time the application was filed, had possession of the

claimed invention. Independent claims 2, 37, and 48, recite the limitation "without the user

having entered a delimiter denoting an end to entry of the abbreviated textual command", which

is not disclosed in the specification. An attempt was made by the examiner to find the basis for

such a limitation in the specification, but no basis was found. The specification does not use or

define the term "delimiter" or contemplate that a delimiter could even be used to denote the end

to an entry of an abbreviated textual command. As such, the specification does not disclose the

ability to exclude such a command-ending delimiter.

Any negative limitation or exclusionary proviso must have basis in the original

disclosure. If alternative elements are positively recited in the specification, they may be

explicitly excluded in the claims. See In re Johnson, 558 F.2d 1008, 1019, 194 USPQ 187, 196

(CCPA 1977) ("[the] specification, having described the whole, necessarily described the part

remaining."). See also Ex parte Grasselli, 231 USPQ 393 (Bd. App. 1983), aff'd mem., 738 F.2d

453 (Fed. Cir. 1984) *(MPEP 2173.05(i)- any claim containing a negative limitation which does*

not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph,

as failing to comply with the written description requirement).

The dependent claims fail to overcome the 35 U.S.C. 112, first paragraph rejection

directed towards the independent claims, and thus are also rejected as failing to comply with the

written description requirement.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   **Claims 2-4 and 9-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Beauregard et al *(U.S. Patent: 5,974,413)* in view of Snapper et al *(U.S. Patent: 7,216,292)* and

further in view of Laursen et al *(U.S. Patent: 6,288,718).*

With respect to **Claim 2**, Beauregard discloses:

Receiving an abbreviated textual command in a natural language search engine *(text*

input, Col. 7, Line 58- Col. 8, Line 49; command code words, Col. 15, Lines 18-58; and

wordbase search, Col. 16, Line 65- Col. 17, Line 31);

Performing the steps of:

Searching a natural language database that stores a data set of abbreviated textual

commands and associated application commands *(searching a "wordbase" database containing*

command code words and associated service scripts, Col. 16, Line 65- Col. 17, Line 31);

Displaying a list of probable complete commands matching the currently received portion

of the abbreviated textual command *(displaying multiple commands in a window that may*

correspond to a entered command word, Col. 42, Lines 27-50).

Although Beauregard teaches a means for presenting a list of probable commands to a

user and further discloses recording command history information *(Col. 17, Lines 16-31; and*

Col. 34, Lines 3-43), Beauregard does not specifically suggest utilizing the history information in

determining the one or more probable text inputs. Snapper, however, recites a means for

determining probable text inputs that utilizes a user history *(user input history used in*

determining a probable complete text entry, Col. 8, Lines 5-12; and Col. 13, Line 59- Col. 14,

Line 5). Snapper further teaches the ability to perform a text search process similar to that of the

claimed invention while receiving a textual input and without the user having to enter a delimiter

(narrowing down of a list of displayed complete text entries with each successive character

entry, Col. 10, Lines 45-60).

Beauregard and Snapper are analogous art because they are from a similar field of

endeavor in user interfaces utilizing text entry. Thus, it would have been obvious to one of

ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard with the

means for determining probable text entries during text input reception utilizing a user history as

taught by Snapper in order to reduce the need for a user to repeatedly enter a complete text entry

(Snapper, Col. 1, Lines 25-34), thus enabling more efficient command entry.

Beauregard and Snapper do not specifically suggest text entry and list narrowing using a portable device, however, Laursen discloses a potable device that progressively reduces a list of potential text entries with each entered character *(Col. 2, Lines 1-24)*.

Beauregard, Snapper, and Laursen are analogous art because they are from a similar field of endeavor in user interfaces utilizing text entry. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard in view of Snapper with the portable device embodiment taught by Laursen in order to further extend the command entry system to other well-known types of portable computing devices *(text command invention is portable to any type of computer, Beauregard, Col. 43, Lines 23-31)*.

With respect to **Claim 3**, Beauregard further discloses:

If a user selects a complete command from the list, then setting the complete command as the abbreviated textual command, and executing the associated application command *(selection of a displayed script command and script execution, Col. 43, Lines 1-13)*.

With respect to **Claim 4**, Beauregard additionally recites:

If a user does not select a complete command from the list, then receiving an entire abbreviated textual command in the natural language search engine *(no match is found and a next action word is accepted, Col. 18, Lines 1-4)*.

With respect to **Claim 9**, Beauregard further discloses:

The abbreviated textual command has a first component and a second component, wherein the first component represents a desired application command, and the second component represents a desired application tag (text command and application identifying tag, Col. 11, Lines 18-26); and

The natural language database stores a data set of abbreviated textual commands and

associated application commands and tags *(database storing command text and application tags,*

Col. 34, Lines 8-18).

With respect to **Claim 10**, Beauregard further discloses:

The abbreviated textual command is entered into a graphical dialog box *(action box, Col.*

27, Line 66- Col. 28, Line 9).

With respect to **Claim 11**, Beauregard further discloses:

The natural language search engine can receive the abbreviated textual command while any of

the software applications are executing *(Col. 10, Lines 3-8).*

8.   **Claims 5, 12, and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Beauregard et al in view of Snapper et al in view of Laursen et al and further in view of Eide

("Valet: An Intelligent Unix Shell Interface," 1995).

With respect to **Claim 5**, Beauregard in view of Snapper and further in view of Laursen

discloses the text command entry method for a hand-held device having an auto-completion

means, as applied to Claim 4. Beauregard in view of Snapper and further in view of Laursen do

not specifically suggest all of the text command entry features disclosed in claim 4, however

Eide recites:

If the abbreviated textual command has an exact match in the data set, then setting the

exact match as a user command *(Pages 37-38)*;

If the abbreviated textual command does not have an exact match in the data set, then analyzing historical preferences to determine if the abbreviated textual command has a probable match in the data set *(misspelled command corrections, Pages 94-95)*;

If the abbreviated textual command has a probable match in the data set, then setting the probable match as the user command *(Pages 94-95 and returning a single probable command)*;

If the abbreviated textual command does not have a probable match in the data set then presenting a list of possible command, receiving a command choice and setting the command choice as the user command (suggest probable command, Pages 94-95); and

Executing the command *(Pages 37-38)*.

Beauregard, Snapper, Laursen, and Eide are analogous art because they are from a similar field of endeavor in user interfaces utilizing text entry. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard, Snapper, and Laursen with the steps for determining probable input commands taught by Eide in order to reduce tedium and typing errors in command entry while increasing command match frequency *(Eide, Pages 29 and 37)*.

With respect to **Claim 12**, Eide further discloses utilizing history data in misspelling correction *(Pages 94-95)*.

With respect to **Claim 13**, Eide further recites:

The list of possible commands includes a set of generic application commands *(Page 97)*.

9.   **Claims 6-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauregard et

al in view of Snapper et al in view of Laursen et al, and further in view of Ramaswamy et al

(U.S. Patent: 6,622,119).

With respect to **Claim 6**, Beauregard in view of Snapper and further in view of Laursen

discloses the text command entry method for a hand-held device having an auto-completion

means utilizing historical information, as applied to Claim 2. Beauregard in view of Snapper and

further in view of Laursen does not specifically suggest probability factors associated with

historical command preferences nor the determination of a probably command as having greater

than a threshold probability value however, Ramaswamy further discloses:

The step of analyzing historical preferences is performed using a set of probability factors

that are generated based on historical preferences, where the abbreviated textual command has a

probable match in the data set when a probability factor associated with the probable match is

greater than a predetermined value *(probabilities based on user history, Col. 5, Lines 19-45; Col.*

6, Lines 11-28; and probability threshold, Col. 8, Lines 3-24).

Beauregard, Snapper, Laursen, and Ramaswamy are analogous art because they are from

a similar field of endeavor in user interfaces utilizing text entry. Thus, it would have been

obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of

Beauregard in view of Snapper and further in view of Laursen with the means for determining

probable input commands utilizing a command history as taught by Ramaswamy in order to

achieve improved natural language understanding accuracy through the use of user regularity

scores *(Ramaswamy, Col. 1, Lines 23-33)*.

With respect to **Claim 7**, Ramaswamy further discloses:

The predetermined value is defined by a user *(predetermined threshold that would*

inherently be set by some type of user, Col. 8, Lines 3-24).

With respect to **Claim 8**, Ramaswamy additionally recites:

Adjusting the set of probability factors each time the abbreviated textual command is

entered into the hand-held device *(using input commands to adapt command prediction for a*

particular user, Col. 3, Lines 14-26; Col. 9, Lines 9-31).

10.   **Claims 37-42 and 48-50** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Beauregard et al in view of Snapper et al.

With respect to **Claim 37**, Beauregard discloses:

Storing a data set of abbreviated textual commands and corresponding complete

commands *(Col. 10, Lines 14-31; Col. 16, Line 65- Col. 17, Line 30; Col. 42, Lines 27-50; and*

Col. 45, Lines 1-37);

Receiving an abbreviated textual command in a natural language search engine *(text*

input, Col. 7, Line 58- Col. 8, Line 49; command code words, Col. 15, Lines 18-58; and

wordbase search, Col. 16, Line 65- Col. 17, Line 31);

Performing the steps of:

Searching a natural language database that stores a data set of abbreviated textual

commands and associated application commands *(searching a "wordbase" database containing*

command code words and associated service scripts, Col. 16, Line 65- Col. 17, Line 31);

Displaying a list of probable complete commands matching the currently received portion of the abbreviated textual command *(displaying multiple commands in a window that may correspond to a entered command word, Col. 42, Lines 27-50)*.

Beauregard does not specifically suggest the ability to perform a text search process similar to that of the claimed invention while receiving a textual input and without the user having to enter a delimiter. Snapper further teaches the ability to perform a text search process similar to that of the claimed invention while receiving a textual input and without the user having to enter a delimiter *(narrowing down of a list of displayed complete text entries with each successive character entry, Col. 10, Lines 45-60)*.

Beauregard and Snapper are analogous art because they are from a similar field of endeavor in user interfaces utilizing text entry. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard with the means for determining probable text entries during text input reception as taught by Snapper in order to reduce the need for a user to repeatedly enter a complete text entry *(Snapper, Col. 1, Lines 25-34)*, thus enabling more efficient command entry.

With respect to **Claim 38**, Beauregard discloses the textual commands as applied to Claim 37 while Snapper further recites:

Displaying the probable subset of the complete entries to the user *(displayed drop-down list, Col. 10, Lines 30-60)*.

With respect to **Claim 39**, Snapper further discloses:

Receiving an indication of which of the displayed complete entry a user chooses *(Col. 10, Lines 45-60)*. Also, Beauregard further discloses multiple command resolution, wherein a selected command is executed *(Col. 42, Line 27-Col. 43, Line 21)*.

With respect to **Claim 40**, Snapper discloses the narrowing down of a list of displayed complete text entries with each successive character entry, as applied to Claim 37.

With respect to **Claim 41**, Snapper discloses suggesting and selecting an exact match *(Col. 12, Lines 3-17)*, while Beauregard discloses command execution as applied to claim 3.

With respect to **Claim 42**, Beauregard further discloses uses-defined textual commands *(Col. 9, Lines 19-22)*.

Claim 48-49 contains subject matter similar to Claim 37, and thus, is rejected for the same reasons.

With respect to **Claim 50**, Snapper discloses the historical preference data used for text entry completion, as applied to Claim 2.

11.   **Claims 43-45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauregard et al in view of Snapper et al and further in view of Eide.

With respect to **Claim 43**, Beauregard in view of Snapper discloses the text command entry method having an auto-completion means as applied to Claim 37.   Although Beauregard teaches a means for presenting a list of probable commands to a user and further discloses recording command history information *(Col. 17, Lines 16-31)*, Beauregard in view of Snapper does not specifically suggest utilizing history of historically used abbreviated commands in determining the one or more probable commands. Eide, however, recites a means for

determining probable input commands that utilizes a command history *(user input history used*

in determining a text command, Pages 28-31).

Beauregard and Eide are analogous art because they are from a similar field of endeavor

in text command systems. Thus, it would have been obvious to one of ordinary skill in the art, at

the time of invention, to modify the teachings of Beauregard in view of Snapper with the means

for determining probable input commands during text command reception utilizing a command

history as taught by Eide in order to reduce tedium and typing errors in command entry while

increasing command match frequency *(Eide, Pages 29 and 37).*

With respect to **Claims 44-45,** Eide recites past commands selected more than half of the

time *(Pages 29-30; Pages 37-38; Pages 94-95).*

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

Lavin et al *(U.S. Patent: 5,772,585)-* discloses a text entry system that narrows down a

list of presented potential entries as a user types each letter.

Shulman et al *(U.S. Patent: 6,026,233)-* discloses a handheld device method for

narrowing a list of potential text entries for each character typed.

Ben-Shachar et al *(U.S. Patent: 6,557,004)-* discloses a handheld device method for

shortening a list of potential text entries for each character typed.

13.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632.

The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Patrick Edouard can be reached at (571) 272-7603. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
7/12/2007

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